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EnergyAustralia
LIGHT THE WAY

Reliability Panel
Australian Energy Market Commission
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Review of the System Restart Standard — Draft Determination — 4 September 2025

EnergyAustralia is one of Australia's largest energy companies with around 2.2 million electricity and gas accounts across eastern Australia. We also own, operate and contract a diversified energy generation portfolio across Australia, including coal, gas, battery storage, demand response, wind and solar assets, with control of over 5,000MW of generation capacity.

EnergyAustralia appreciates the opportunity to provide feedback on the draft determination on the review of the System Restart Standard.

We support the Panel's assessment criteria as they take into consideration the evolving nature of the NEM. We are in favour of system services that are transparent to market participants as this reduces ambiguity, provides AEMO with the necessary confidence of available restart capability assets and allows for innovation as technology applications evolve. The following provides our responses to the Panel's questions.

Question 1 – Procurement and investment in SRAS capability

SRAS investments typically have long lead times (including plant upgrades, fuel arrangements, control systems etc) and investment considerations are thought well in advance. The current short-term procurement signals may therefore not properly incentivise new entrants or technology innovation.

Given the technical nature of SRAS, in our view, the procurement objective is best defined by consideration of "lowest long-term costs to deliver the prescribed standard" rather than a change to reference the NEO. The NEO consists of competing objectives and broadening the scope of procurement to reference the NEO would in fact weaken the procurement of SRAS as it would not provide clarity to AEMO on the type of restart capabilities best suitable. AEMO may have broad discretion in interpreting the NEO, which is not aligned with the transparency criteria. We consider that consistency across other frameworks that employ the "lowest cost" objective, such as the Transitional Services Framework (Schedule 3.11A), would provide the certainty and clarity needed to invest in system restart capability in the future.

We are supportive of the recommendation for AEMO to commence Type 2 transitional services trialling of SRAS capabilities of different technologies to understand their potential role in system restart. It is timely for AEMO to deepen its knowledge about future system restart needs and how to meet them. So far, AEMO has had limited engagement with industry on these services, despite the need for investment in this critical area of the power system.

To drive future investment, we consider it is important for the Standard to explicitly reference "restoration support services" alongside "black start capability" and not leave this to AEMO's discretion. The draft report uses both terms but restoration support services are omitted in the Draft Standard.

Question 2 – Reporting on future SRAS needs

AEMO should publish a high-level findings report for industry consultation. This should cover the competitive landscape, how many eligible services bid and their technical make up, plus some historical performance metrics about tests conducted, availability achieved etc. This could be published with a separate confidential version provided to the Panel that includes detailed assumptions, models, restart paths, contracted capabilities and compliance metrics, and specifically calls out the commercial benefits of the competitive contract procurement process.

Question 3 – Future focused restoration modelling approach and engagement

Forward planning for SRAS is an important part of the overall security of the NEM. Future restoration modelling will provide transparency of system restart capabilities of different technologies, while taking into account the changes in technology mix and thermal generator retirements.

While the Standard focuses on restoring generation capacity to a threshold – 50% in 8 hours – modelling should examine full load restoration trajectories, including bottleneck constraints, network topology, fuel constraints, and sensitivity to contingencies. It should also highlight inherent risks in alternative paths and options available from a delivery/operational risk perspective. This may provide specific and direct intelligence on a preferred package of SRAS services that are similarly bid.

We support the range of improvements proposed in the draft report for AEMO to report on:

- Future power system restart needs over the planning horizons part of the annual Transitional Plan for System Security (TPSS) and potential options to procure SRAS

- Inclusion of SRAS investment opportunities and gaps in the Electricity Statement of Opportunities (ESOO)

In addition, we suggest AEMO also produce and maintain two guidance documents, with such amendments included in the Standard:

- Guidance on strategic location of services subject to stakeholder consultation, and

- Guidelines for the characteristics of restoration islands subject to stakeholder consultation

The outputs from modelling should feed directly into SRAS procurement sizing, locational selection, and reliability margins—the "gap" identified in modelling should be addressed in procurement plans (or justification if such information is not provided).

Question 4 – Reporting on future SRAS opportunities through the Electricity Statement of Opportunities or similar publication

We support including SRAS opportunities in the ESOO as this will enhance investment signals. The new ESOO section could include information such as:

- Projected SRAS shortfall or surplus by sub-region and year
- Locational (subnetwork) breakdowns of need
- Scenario-based sensitivity ranges
- Opportunities for new capacity investment

Question 5 – Enhancing the local black system procedure framework

The guidelines (per clause 4.8.12(e) NER) already require AEMO to issue LBSP guidelines, but they have not always kept pace with evolving technologies, such as the proposed inclusion of restoration support services. We support enhancements that allow AEMO to have more accurate information to identify gaps for system restart. The Standard could require AEMO to maintain this information, including restoration island definitions.

Recognising confidentiality, LBSPs should distinguish between "public summary" and "detailed confidential annex" components. Participants may redact or mask sensitive parts while still providing sufficient detail to AEMO and oversight bodies.

In line with the principle of "lowest long-term costs", the LBSPs templates should ensure that a generator is not prevented from entering into energy support agreements with other market participants. These costs will not be passed on to consumers in the sub-region since these costs are recovered privately through contracts.

Question 6 – SRAS testing framework

Testing is essential to validate SRAS providers' performance and ensure reliability. Parameters are determined at registration through the GPS. AEMO has visibility of the entire pathway to restoration, and the Standard needs to provide clarity of testing requirements of the TNSP component and the generator component in equal measure. Any failures due to network constraints or external events outside the SRAS provider's control should not result in penalties leading to inadequate testing.

Question 7: Governance arrangements related to the role of the Standard

We consider there is tension between confidentiality (for security) and transparency/accountability. As such, the Reliability Panel is the appropriate body to set, review and update the Standard, leveraging its technical independence. The Standard should clearly outline how and when reviews are triggered, for example, by asset retirements, modelling shifts, or after disturbances.

If AEMO proposes changes to the sub-network boundary definitions, which are critical for procurement and restart paths, these must be submitted to the Panel for review, with

consultation from stakeholders. The TPSS reporting requirements could further consist of any changes to sub-networks boundaries.

Question 8: Merits of a load restoration standard

We note the amendments to the Standard to restore generation capability to 50% of the 12-month forecast average of underlying demand within 8 hours. While generation restoration is necessary, it does not guarantee load restoration if network constraints, system balancing, fuel or ramp limitations, or other operational constraints intervene.

Having a load restoration standard could create stronger incentives for full or higher load recovery, improving consumer outcome, but, at the same time, it might also impose additional risks and complexity. The Standard may consider provision where AEMO provides more details on load restoration targets, noting the nature of this kind of analysis. This analysis would remain confidential and subject to review by the Reliability Panel.

Question 9: Procuring SRAS to enable restart of each electrical sub-network independently

A guiding principle in the current Standard is that each sub-electrical network must be able to be restarted independently, rather than relying on import from adjacent sub-networks.

However, the draft Standard and procurement guidelines sometimes leave ambiguity as to how strongly this independence requirement is enforced, particularly when interconnection or parallel restart paths might appear feasible.

We consider it is important to strengthen the Standard such that procurement must explicitly require that sufficient SRAS capability is delivered within each subnetwork or in a location that can reliably energise that sub-network.

Question 10: Compliance arrangements related to the Standard

The Standard is a planning standard (not operational) and compliance is measured in terms of procurement, modelling, reporting and readiness, rather than real-time dispatch. Gaps or deviations from the Standard, such as missing SRAS capacity, model deviations, test failures, need meaningful compliance arrangements to maintain credibility. All these aspects are covered in the SRAS contract, which the NER stipulates that an SRAS provider must comply with all the contract conditions. We consider that in terms of compliance, the rules are clear, and an added layer of compliance is not required.

The overarching guiding principle is that the Standard and supporting processes should evolve to forward-planning, anticipating change, signalling investment, and embedding robustness into restart capability.

If you would like to discuss this submission further, please contact me on Ana.Spataru@energyaustralia.com.au or call me on (03) 9060 0713.

Regards

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